

**AMENDMENTS TO THE SPECIFICATION:**

Please replace the paragraph beginning at page 15, line 3 with the following:

Via the bearing part 3, and by means of a bearing arrangement 40 comprising taper roller bearings 9a, 9b ~~10~~, the drill head 1 is mounted such that it can rotate on a shaft journal 11 of a main shaft 12. The shaft journal 11 has a substantially cylindrical external circumferential surface and is integrally formed on the main shaft 12 so that its axis B encloses an acute angle  $w$  of approximately  $5^\circ$  with the axis of rotation A.

Please replace the paragraph beginning at page 15, line 11 with the following:

The main shaft 12 for its part is mounted so that it can rotate about the axis of rotation A in a machine housing 15 by means of taper roller bearings 13a, 13b ~~14~~ and is driven in rotation by a hydraulic motor 16 flanged on at the end of the shaft. The part of the bearing part 3 that faces the scraper disk 2 is designed as a gearwheel, termed wobbling edge 17 in the text that follows, which is arranged concentrically with respect to the

axis B of the shaft journal 11, and is thus designed as the circumferential region 18 which, during rotation of the main shaft 12, runs in an internal tooth system 20 acting as a complementary circumferential region 19.

Please replace the paragraph beginning at page 16, line 6 with the following:

At the end opposite the inner tooth system 20, the hollow wheel has a further internal tooth system 22 which is part of a planet gear mechanism designated overall by 28. The tooth systems of the parts of smaller diameter 24 of planet gearwheels 23 engage in the internal tooth system. The parts 25 of larger diameter of the planet gearwheels 23 engage by way of their tooth system in an external tooth system 26 provided on the main shaft 12, and also in an internal tooth system 27 provided in the machine housing 15. As a result, while the main shaft 12 is being driven in rotation the planet gearwheels orbit the axis of rotation A in the same direction of rotation. In the process, the hollow wheel 21 is set rotating in the opposite direction to the drill head 1 11, the rotation of the latter being brought about by the wobbling wheel 17 running on the internal tooth system 20. It goes without saying that by selecting the ratios in the planet gear mechanism 28 it is

possible to predetermine the speed of rotation of the hollow wheel 21 relative to the main shaft 12 and thus, as a result, the ratio of the wobbling frequency to the rotational frequency of the drill head.

Please replace the paragraph beginning at page 19, line 11 with the following:

Detached drilled material is transported away using a conveying channel 10 whose rear region 10b ~~11~~ of circular internal cross section is flattened off toward the drill head space 0 in order finally, in a receiving end 10a ~~12~~ having a partially annular cross section, to lead into the drill head space 0 (see, in particular, figs 2 and 3).

Please replace the paragraph beginning at page 19, line 17 with the following:

Provided in the region of the receiving end 10a ~~12~~ are breaker ribs 10c ~~13~~ which extend approximately radially, as can be discerned in fig. 2. The breaker ribs 10c ~~13~~ are arranged in pairs in each case, in such a way that a small spacing separating two adjacent breaker ribs 10c ~~13~~ is followed by a larger spacing. The

pitch of the ribs 10c ~~13~~ is selected in such a way that the drilled material awaiting removal is crushed to such an extent that it is able to be transported away through the conveying channel 10 without problems.

Please replace the paragraph beginning at page 20, line 8 with the following:

For the purpose of mechanically feeding drilled material into the receiving end 10a ~~12~~ of the conveying channel 10, the ends of the arms 7, 7', 7" of the scraper disk 2 are provided with continuations 29, 29', 29" ~~9, 9', 9"~~ whose rear-facing faces 14, 14', 14" are designed as conveying faces for the drilled material. The faces 14, 14', 14" likewise serve as striking faces for the purpose of breaking the drilled material. The wobbling frequency of the scraper disk is synchronized with the speed of rotation of the scraper disk in such a way as to cause drilled material to be pushed mechanically into the receiving end 10a ~~12~~ of the conveying line 10 during a pass of one of the arms 7, 7', 7".